

September 19, 2006

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND PUBLIC GROUPS

As required by state and federal rules for determining whether an Environmental Impact Statement is necessary, an environmental review has been performed on the proposed action below:

Project	Ennis Wastewater Treatment Facility – Phase I & II
Location	Ennis, Montana
Project Number	C301185-01
Total Cost	\$460,000 Phase II (\$2,200,000 Total)

The Town of Ennis upgraded its wastewater treatment system and outfall main from the Town in 2004-2005. The 2004-2005 improvements (Phase I) included the construction of a three-cell aerated lagoon, a lift station, and replacement of a portion of the trunk main piping carrying sewage from town to the treatment facility. The new lagoon system was constructed within existing system cells #1 and #2 and the replacement of the trunk main followed the alignment of the existing outfall line. The Phase I work was completed approximately one year ago. The Phase II improvements to be completed in 2006 include new effluent outfall piping at the Madison River outfall, effluent ultraviolet (UV) disinfection system, and disposal of stored sludge. The sludge was placed in existing Cell #3 during the Phase I construction for temporary storage. Treated effluent will continue to be discharged to the Madison River through the new outfall.

An extensive environmental assessment (EA) was prepared for the Phase I improvements for the Town of Ennis wastewater treatment facility. The EA determined no significant adverse environmental impacts related to the proposed projects were anticipated. The DEQ issued a Finding of No Significant Impact (FONSI) in December 16, 2003 for the Phase I improvements.

In July 2006 the Technical & Financial Assistance Bureau of the DEQ received plans and specifications for its review and written approval for the Phase II improvements and therefore has prepared an Environmental Assessment (EA) checklist. This EA checklist has been prepared to satisfy the requirements of the Montana Environmental Policy Act (MEPA), supplementing the December 16, 2003 FONSI/EA for the Phase I work, and is adopted herein by reference. The EA Checklist is for the Phase II work and provides a supplement to the original EA for the proposed improvements, which includes minimal work compared to the Phase I work.

Federal and State grant/loan programs will fund the project. Environmentally sensitive characteristics such as historical, wetlands, floodplain and threatened or endangered species are not expected to be adversely impacted as a result of the proposed project. No significant long-term environmental impacts were identified. An environmental assessment checklist,

which describes the project and analyzes the impacts in more detail, is attached to this Finding of No Significant Impact.

These documents are available for public scrutiny at the following location:

Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-0901

Town of Ennis
328 West Main Street
P.O. Box 147
Ennis, MT 59729

The document is available electronically on the DEQ home page (www.deq.mt.gov).

Comments supporting or disagreeing with this decision may be submitted for consideration by the Department of Environmental Quality. After evaluating the comments received, the agency will make a final decision.

Sincerely,

Todd Teegarden, Bureau Chief
Technical and Financial Assistance Bureau
Planning, Prevention & Assistance Division

DEPARTMENT OF ENVIRONMENTAL QUALITY

Environmental Assessment

Name of Project: Ennis Wastewater System Improvements

Location of Project: Treatment Ponds: SW ¼ of Section 34, Township 5 North, Range 1 West;
Sludge Disposal Site: NW ¼ of Section 2, Township 7 North, Range 1 West

City/Town: Town of Ennis **County:** Madison

Description of Project: The Town of Ennis upgraded its wastewater treatment system and outfall main from the Town in 2004-2005. The 2004-2005 improvements (Phase I) included the construction of a three-cell aerated lagoon, a lift station, and replacement of a portion of the trunk main piping carrying sewage from town to the treatment facility. The new lagoon system was constructed within existing system cells #1 and #2. Sludge from the bottom of the cells was placed in existing Cell #3 during the Phase I construction for temporary storage. Replacement of the trunk main followed the alignment of the existing outfall line. The Phase 1 work was completed approximately one year ago. Treated effluent will continue to be discharged to the Madison River through the existing piping, but the actual outfall pipe will be modified during the Phase II work. See Figure 1 for map of the Ennis area.

The Phase II Improvements to be completed in late 2006 include the construction of an effluent diffuser in the Madison River, the construction of an effluent ultraviolet (UV) disinfection system, and disposal of the sludge that was stored during the Phase I work. More specifically, to better disperse the effluent in the river, the existing single outfall pipe will be replaced with four pipes. The construction of the effluent ultraviolet (UV) disinfection system will include a new building to house the UV system. The UV system will include a single UV lamp, pumps, meters, and associated piping. The work will also include the disposal of approximately 6,100 tons of sewage sludge. The sludge will be land applied on private property located approximately seven miles south of Ennis. The sludge will be applied to two different sites. One site is approximately 125 acres in size and the other site is approximately 160 acres in size. Wheat will be grown on both sites.

The sludge from the existing lagoons was moved to an abandoned cell (#3) at the wastewater treatment facility in order to reconstruct the new treatment ponds during the Phase I work. Disposal of any sludge (biosolids) will have to meet all requirements of the EPA 503 regulations. A Notice of Intent (NOI) was submitted to the EPA on January 5, 2006 and was amended on August 3, 2006. The sludge was tested and is classified as high quality, and does not have any heavy metal concentrations that will prevent or control land application. The land application sites are depicted in Figure 2.

The DEQ, Technical & Financial Assistance Bureau, has received plans and specifications for its review and written approval, in addition to an application for a State Revolving Fund (SRF) loan, for the project, and therefore has prepared this Environmental Assessment (EA) checklist. This EA checklist has been prepared to satisfy the requirements of the Montana Environmental Policy Act (MEPA), supplementing the December 16, 2003 FONSI/EA for the Phase I work and is adopted herein by reference. This EA Checklist is for the Phase II work as discussed herein.

Ennis EA Checklist
Phase II Construction

Map of Project Area:

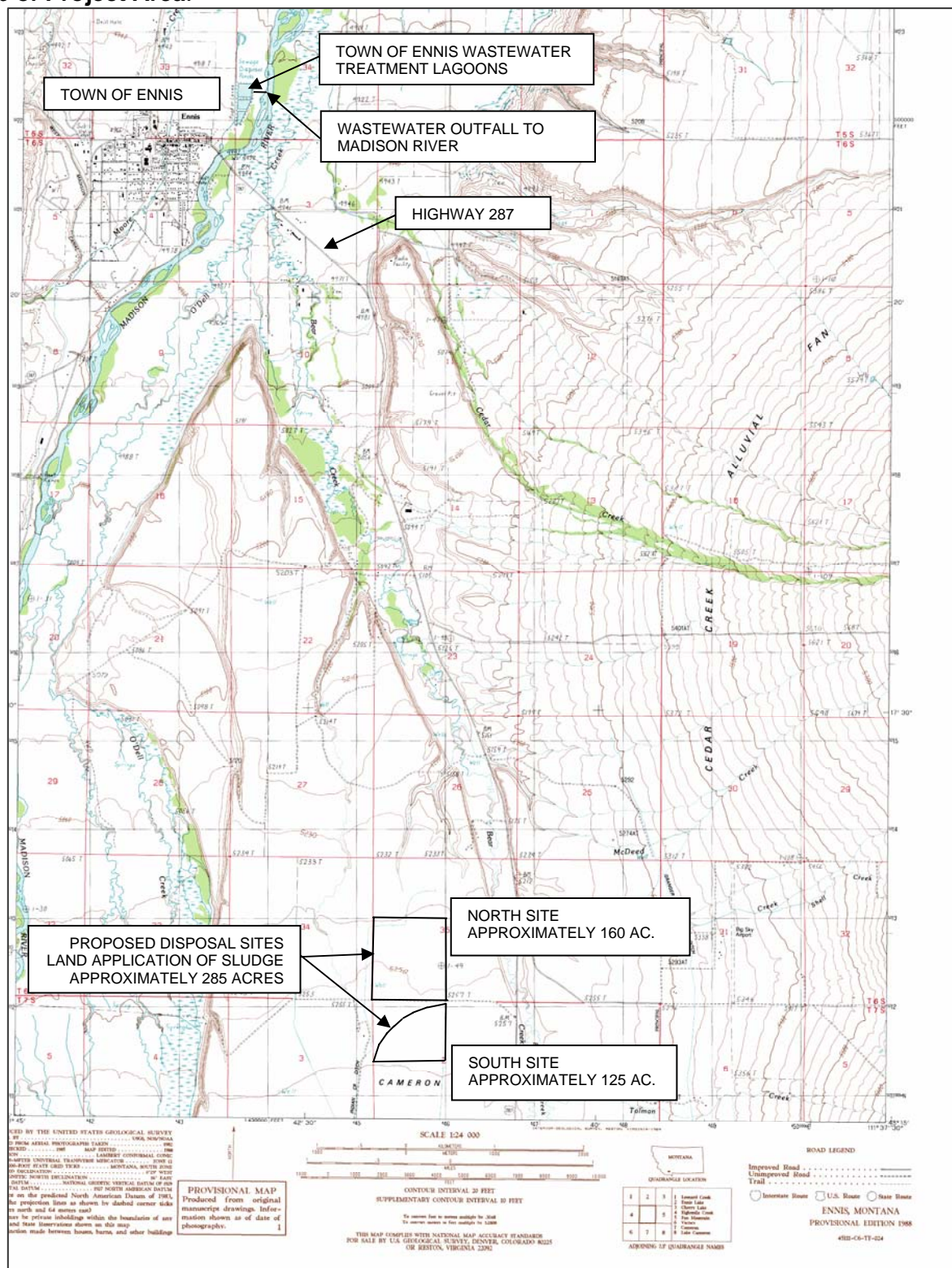


FIGURE 1

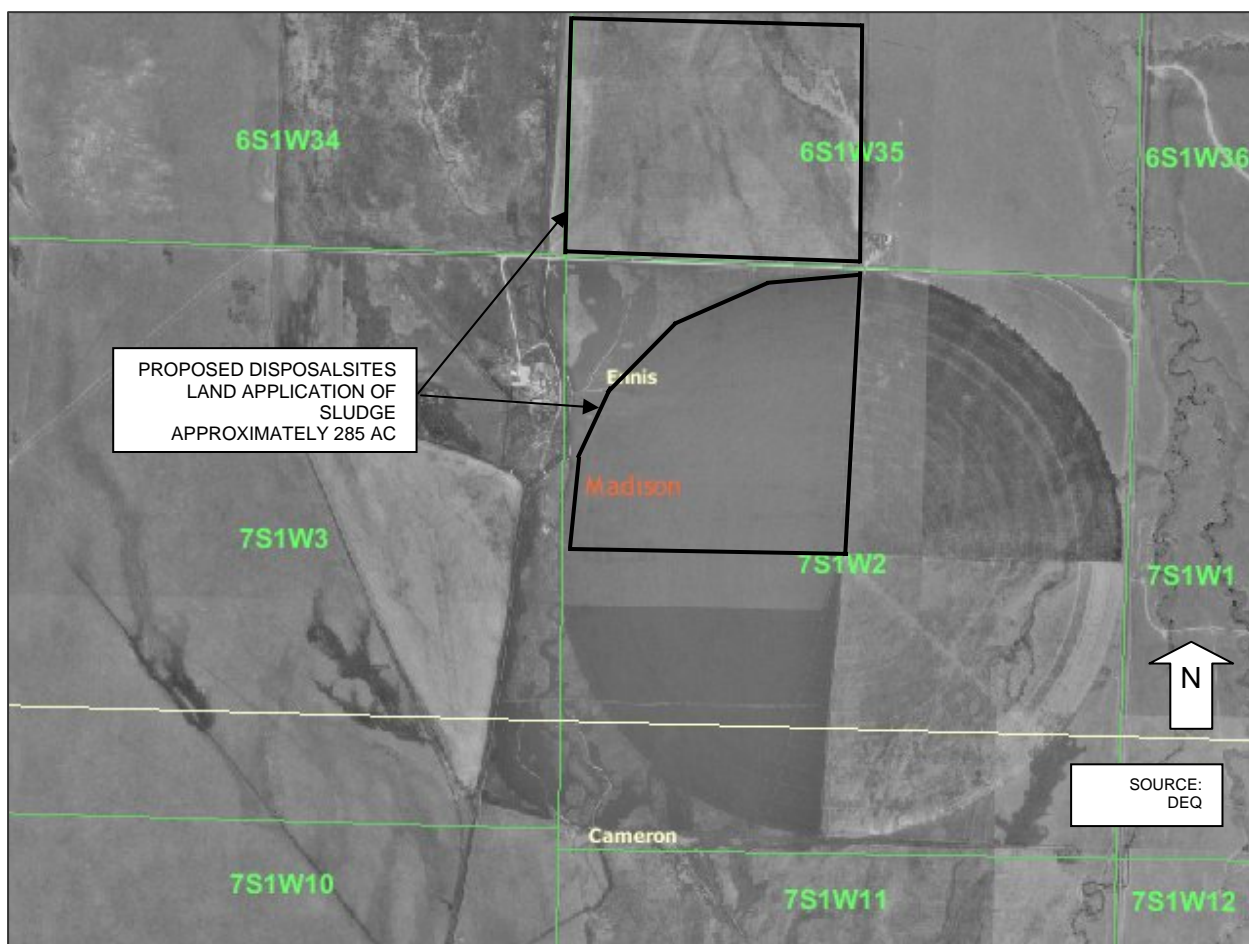


FIGURE 2
AERIAL PHOTO OF SLUDGE DISPOSAL SITE
No Scale

Agency Action:

Plan review and approval for the above-mentioned project.

Other Agency Approvals:

- | | |
|--|---|
| <input type="checkbox"/> DNRC Water rights | <input type="checkbox"/> DEQ Subdivision Review |
| <input checked="" type="checkbox"/> Other: <u>EPA, and MDT permits</u> | <input type="checkbox"/> DEQ Water Discharge Permit |

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive,	[N] Soils in the project area are generally stable with slopes not exceeding 2%. Ennis is located near the northwest end of the Madison River Valley at an elevation of approximately 4,925 feet above sea level with the terrain in town being generally

IMPACTS ON THE PHYSICAL ENVIRONMENT	
<p>susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>	<p>flat. The Town of Ennis consists of residential and agricultural land. Three ranges of the Rocky Mountains; the Madison Range to the east, the Gravelly Range to the southwest, and Tobacco Root Mountains to the northwest surround Ennis. Ennis Lake is located north of Town. The soils that underlie the wastewater treatment facility are composed of an upper layer of gravelly sandy loam and a lower, thicker layer of very gravelly loamy coarse sand, extremely gravelly sand, and very gravelly sand. The depth to groundwater varies seasonally in the area and given the proximity of the treatment site to the Madison River and the alluvial nature of the soils, it is likely that there is a hydraulic connection between the groundwater and surface water. Precipitation in the area averages 12.45 inches/year and evaporation averages about 27.35 inches/year. The Madison River is classified as a B-1 surface water stream. Surface waters classified B-1 are suitable for drinking, culinary and food processing purposes, after conventional treatment.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] Town of Ennis obtains its domestic water supply from three wells located 0.5 miles up gradient from the treatment facility. Water quality in the area will improve due to the proposed upgrades to the town's treatment facility. The majority of improvements occurred during the first phase of improvements (completed in 2005), which included new treatment ponds. The ponds were constructed with synthetic liners, which eliminated leakage from the lagoons. The second phase of construction includes an outfall system in the Madison River to disperse the treated effluent, a disinfection system using ultra-violet lights to treat the effluent, and disposal of stored sludge at agronomic rates (land applied at rates that crops will uptake the nutrients). Prior to upgrading the treatment facility, the facility was operated as a controlled discharge facility as a means of optimizing treatment during the winter months and avoiding permit violations. The treatment facility was leaking excessively and was undersized for summertime flows and loads. In addition, the configuration of the outlet structure prevented the discharge of treated wastewater during periods of river gorging in the spring when the lagoons were typically full due to the requirement of winter storage. Modifications to the effluent outfall structure in the Madison River should be minimal. However, because new piping will be placed in the stream bank, some disturbance in the stream will occur.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	At the sludge disposal sites, land application rates will be designed so that sludge will be applied at agronomic rates. When applied at agronomic rates, the nutrients present in the sludge are used up by the crop. No nutrients should reach groundwater. All the sludge (approximately 6,100 tons) currently stored at the WWTF will be disposed of on two sites that are approximately 7 miles south of the town. The south site is approximately 125 acres in size and the north site is approximately 160 acres in size. Both locations will be used for wheat crops. Incorporation of the sludge into the soil will occur per EPA requirements. After the sludge has been removed from storage (Cell #3), alfalfa hay will be planted.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Short-term negative impacts on the air quality will occur from heavy equipment dust and exhaust fumes during project construction. Proper construction practices and dust abatement measures will be taken during construction to control dust, thus minimizing this problem. Watering during construction is a common and effective measure to control dust. Brief adverse impacts to air quality may occur in the vicinity of the storage lagoon and the sludge disposal sites during the screening, loading, transport, and land application of the sludge. The potential for odors should be minimal.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] Minimal plant species of concern are present within the wastewater treatment facility. Vegetation in the excavation areas will be affected; however, all of these species are common and plentiful in the area. After the project is complete, the area will be reseeded with native vegetation to replace what has been disturbed. The sludge disposal sites are currently being used for crop land. Disposal of the sludge will not impact the current use. The application rate will be designed for wheat crops. No long-term affects to vegetation are expected as a result of this project.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No long term affects to vegetation, wildlife species, or habitats are expected as a result of this project. The sludge is stored in Cell 3 of the wastewater treatment facility, which is immediately adjacent to the other wastewater treatment cells. Work on outfall piping in the Madison River should be minimal. The south site to receive sludge is currently used for wheat and will continue as a wheat crop. The northern site is currently alfalfa and grass, but will also be planted as a wheat crop. The aquatic life habitat may improve as a result of this project. The quality of the town's effluent discharge will be

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	improved due to the disinfection system and the new dispersion outfall system.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	<p>[N] The US Fish and Wildlife Service reviewed the project for the Phase I work and determined there were no anticipated impacts to the listed species due to the scope, location, and nature of this project. The USFWS has not responded to the Phase II request for comments. It is expected the USFWS will not have concerns with the proposed Phase II work either. All proposed construction will occur within existing structures and will not impact new areas. Animal life will not be significantly affected by the proposed project. Improved treatment will reduce the nutrient loading to the river.</p> <p>The local floodplain administrator (County Sanitarian) determined the impact to the floodplain would be minimal, that the plans and materials were in compliance with the applicable Floodplain Management Standards and approved the construction (Permit 06FDP010901). The Montana Fish, Wildlife and Parks reviewed the plans and approved the work (124 and 318 Authorization) with several conditions. Permit MADCO-06-05).</p>
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	<p>[N] According to the State Historic Preservation Office (SHPO), there have been no previously recorded historic or archaeological sites within the project area. SHPO felt that there was a low likelihood that cultural properties would be impacted and, as such, a cultural resource inventory was unwarranted at this time. All construction will take place in previously disturbed areas. If any archaeological resources are discovered, the Montana State Historic Preservation Organization (SHPO) must be notified.</p>
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	<p>[Y] The disinfection building will be constructed on town property within the existing wastewater treatment facility, and will have minimal visible, noise, or lighting impacts to the site. The wastewater treatment site is located 0.5 miles northeast of the town. This area is not on a prominent topographic feature of the area.</p> <p>The sites to receive the sludge are approximately seven miles south of the town. These sites are typically used for crops and grazing of cattle. After the sludge has been removed from the cell, noise will occur during the seeding process, if the alfalfa is harvested, some noise will occur during the harvesting process. The sludge disposal sites are privately owned. The southern site (125 acres) can be irrigated (center pivot sprinkler system). Both sites will be planted with wheat. Other than the equipment noise that will occur during the application and incorporation of the sludge into the soil, there will be no additional noise due to</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	the application of the sludge.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[Y] There will be an increased energy demand from this project in order to operate the disinfection system. This additional energy demand cannot be avoided. However, it is relatively minimal in proportion to regional demands.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] No other nearby activities are expected to affect the proposed project.

IMPACTS ON THE HUMAN ENVIRONMENT	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] The proposed improvements include a disinfection system to treat the effluent from the wastewater treatment facility prior to discharging the effluent to the Madison River. Disinfection will help protect secondary recreational users. Public safety and health will improve as a result of the proposed project because the town's current effluent is not disinfected before it is discharged into the Madison River. Approximately 6,100 tons of sludge currently being stored in Cell 3 of the lagoon will be hauled off-site to private owned land for disposal (land application). The sludge will be applied at agronomic rates for the proposed field crop (wheat) and then incorporated into the soil (tilled) per the EPA General Permit No. MTG650000.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] Commercial and industrial growth may occur as an indirect result of this project.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] Several temporary jobs will be created during construction of the disinfection building, construction of the new outfall and disposal of the sludge. Yearly monitoring at the sludge disposal sites may continue for five years. Monitoring work will be very limited. The disinfection system will be operated by the current wastewater treatment facility staff. Therefore, no long term jobs will be created by this project.

IMPACTS ON THE HUMAN ENVIRONMENT	
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] This project will not create or eliminate tax revenue.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] Substantial traffic additions to existing roads are not anticipated as a result of this project. Temporary traffic disruptions may occur during the removal of the sludge and the construction of the disinfection system. Construction traffic control will be required for work within the road right of ways. Increased demand for fire protection, police, schools, etc. is not expected as a result of this project.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] The proposed project does not impact any known local environmental plans or goals.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] Public lands and open space will not be affected as a result of this project. The lagoon site is currently owned by the town of Ennis. The off-site sludge disposal site is located on privately owned land.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] Density and distribution of population and housing will not be affected as a result of this project.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No changes to native or traditional lifestyles are anticipated as a result of this project.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No changes to cultural uniqueness and diversity are anticipated as a result of this project.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No known impacts.

IMPACTS ON THE HUMAN ENVIRONMENT	
22. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No further analysis is necessary.

23. Summary of Magnitude and Significance of Potential Impacts: No significant adverse impacts are anticipated as a result of this project. Short-term negative impacts on the air quality will occur from heavy equipment dust and exhaust fumes during project construction. Proper construction practices and dust abatement measures will be taken during construction to control dust, thus minimizing this problem. Brief adverse impacts to air quality may occur in the vicinity of the lagoon storing the sludge and the sludge disposal sites. However, these impacts should be minimal as there is a low potential for odor generation at the lagoon site because the sludge is moderately dry and will be tilled into the ground within six hours of land application. There will be a slight visual impact at the lagoon site because of the new disinfection building.

Minimal construction noise will be generated during construction of the disinfection building and the outfall structure. Some noise will be generated during removal of the sludge from the lagoon. However, these noises will be limited to the relatively short construction period.

In addition, there will be an increased energy demand from this project in order to operate the disinfection system. This additional energy demand cannot be avoided. However, it is relatively minimal in proportion to regional demands.

24. Cumulative Effects: No significant adverse impacts are anticipated due to the Phase II improvements.
25. Preferred Action Alternative and Rationale: Approve plans and specifications. The applicable state design standards have been met and no significant impacts have been identified.

Recommendation for Further Environmental Analysis:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

Rationale for Recommendation: An extensive environmental assessment (EA) was prepared for the Phase I improvements for the Town of Ennis wastewater treatment facility. The EA determined no significant adverse environmental impacts related to the proposed projects were anticipated. The DEQ issued a Finding of No Significant Impact (FONSI) in December 16, 2003

Ennis EA Checklist
Phase II Construction

for the Phase I improvements. The proposed Phase II improvements plans were reviewed by the DEQ to determine if there would be significant environmental impacts. Moreover, environmental impacts were solicited from five agencies including: the State Historic Preservation Office, the US Army Corps of Engineers, the Department of Natural Resources and Conservation, Montana Fish Wildlife, and Parks, and the U.S. Fish and Wildlife Service. Based on the responses received from these agencies and the review by the Department of Environmental Quality, it was determined an environmental impact statement was not required and the EA Checklist was an appropriate level of analysis.

The FONSI was not advertised, but is available on the DEQ web site for review and comments. The EA Checklist provides a supplement to the original EA for the proposed improvements, which includes minimal work compared to the Phase I work. The EA Checklist was therefore deemed to be adequate. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607, 17.4.608, 17.4.609, and 17.4.610.

EA Checklist Prepared By:

Jerry Paddock, P. E.

Date

EA Checklist Approved By:

Todd Teegarden, P.E.

Date